

## CLAIMS

### **What is claimed is:**

1. A method comprising:

maintaining in a network node a data structure that includes a set of domain names and at least one alternative domain name corresponding to each domain name from the set of domain names, the network node coupled to a wireless network and a wired network; and

using the data structure to validate a domain name associated with an attempted access to a network site on the wired network by a mobile device on the wireless network.
2. The method of claim 1 wherein the network node is a proxy gateway which proxies communications between mobile devices on the wireless network and sites on the wired network.
3. The method of claim 1 wherein the domain name associated with an attempted access to the network site is a domain name retrieved from a digital certificate transmitted by a server located on the wired network.
4. The method of claim 1 wherein the wired network is Internet.
5. The method of claim 3 wherein the server is a secure server.

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6. The method of claim 1 wherein the data structure comprises at least two fields.
  7. The method of claim 6 wherein a second field of the at least two fields comprises the at least one alternative domain name corresponding to a domain name in a first field of the at least two fields.
  8. The method of claim 7 wherein using the data structure to validate the domain name comprises searching the second field for a domain name matching the domain name associated with the attempted access to the network site, the domain name in the second field corresponding to the domain name in the first field.
  9. The method of claim 1 wherein the data structure is a mapping table.
  10. The method of claim 8 wherein the domain name from the second field supports wildcard characters.
  11. A method comprising:
    - obtaining a first domain name provided by a client;
    - retrieving a second domain name from a digital certificate;

comparing the first domain name and the second domain name;  
and  
accessing a data structure if the first domain name and the second  
domain name do not match.

12. The method of claim 11 wherein the client is a mobile device connected to a wireless network.
13. The method of claim 11 wherein the digital certificate is transmitted by a server on a wired network.
14. The method of claim 13 wherein the wired network is Internet.
15. The method of claim 13 wherein the server is a secure server.
16. The method of claim 13 further comprising allowing the client to access contents of the server if the first domain name and the second domain name match.
17. The method of claim 13 wherein the data structure comprises at least one domain name not matching to the first domain name, the at least one domain name corresponds to the first domain name and if present in the

digital certificate indicates that the digital certificate was transmitted by a server referenced by the first domain name.

18. The method of claim 13 wherein the data structure comprises at least two fields.

19. The method of claim 18 wherein a second field of the at least two fields comprises at least one domain name corresponding to a domain name in a first field of the at least two fields.

20. The method of claim 19 further comprising searching the first field for a domain name matching the first domain name and searching the second field for a domain name matching the second domain name, the domain name from the second field corresponding to the domain name from the first field.

21. The method of claim 20 further comprising allowing the client to access the server if the domain name from the second field matches the second domain name.

22. The method of claim 20 further comprising allowing the client to access the server if the domain name from the second field matches the second

domain name and a status of the first field and the second field is set to an allow status.

23. The method of claim 20 further comprising denying the client an access to the server if the domain name from the second filed does not match the second domain name.

24. The method of claim 19 further comprising denying the client an access to the server if a status of the first field and the second field is set to a deny status.

25. The method of claim 20 wherein the domain name from the second field supports wildcard characters.

26. The method of claim 10 wherein the data structure is a mapping table.

27. A method comprising:

obtaining a first domain name transmitted by a mobile device, the mobile device connected to a wireless network;

retrieving a second domain name from a digital certificate transmitted by a secure server, the secure server located on a wired network, the wired network is coupled to the wireless network;

comparing the first domain name and the second domain name; and accessing a data structure if the first domain name and the second domain name do not match, the data structure comprising at least one domain name not matching to the first domain name, the at least one domain name corresponding to the first domain name and if present in the digital certificate indicates that the digital certificate was transmitted by a server referenced by the first domain name.

28. The method of claim 27 wherein the data structure is a mapping table.
29. The method of claim 27 wherein the wired network is Internet.
30. The method of claim 27 further comprising allowing the mobile device to access contents of the server if the first domain name and the second domain name match.
31. The method of claim 27 wherein the data structure comprises at least two fields.

32. The method of claim 31 wherein a second field of the at least two fields comprises at least one domain name corresponding to a domain name in a first field.
33. The method of claim 32 further comprising searching the first field for a domain name matching the first domain name and searching the second field for a domain name matching the second domain name, the domain name from the second field corresponding to the domain name from the first field.
34. The method of claim 33 further comprising allowing the mobile device to access the server if the domain name from the second field matches the second domain name.
35. The method of claim 33 further comprising allowing the mobile device to access the server if the domain name from the second field matches the second domain name and a status of the first field and the second field is set to an allow status.
36. The method of claim 33 further comprising denying the mobile device an access to the server if the domain name from the second filed does not match the second domain name.

37. The method of claim 32 further comprising denying the mobile device an access to the server if a status of the first field and the second field is set to a deny status.
38. The method of claim 33 wherein the domain name from the second field supports wildcard characters.
39. A method comprising:
- obtaining a first domain name transmitted by a mobile device, the mobile device connected to a wireless network;
  - retrieving a second domain name from a digital certificate transmitted by a secure server, the secure server located on a wired network, the wired network is coupled to the wireless network by a proxy gateway;
  - using a proxy gateway to compare the first domain name and the second domain name;
  - using the proxy gateway to access a mapping table if the first domain name and the second domain name do not match, the mapping table located on the proxy gateway and comprising at least two fields, a second field of the at least two fields comprising at least one domain name corresponding to a domain name in a first field of the at least two fields;

searching the first field for a domain name matching the first domain name and searching the second field for a domain name matching the second domain name, the domain name from the second field corresponding to the domain name from the first field, a matching of domain name in the second field to the second domain name indicating that the digital certificate was transmitted by a server referenced by the first domain name; and

allowing the mobile device to access contents of the server if the domain name from the second field matches the second domain name.

40. The method of claim 39 wherein the wired network is Internet.
41. The method of claim 39 wherein the domain name from the second field supports wildcard characters.
42. An apparatus comprising:
  - a gateway coupling a wireless network to a wired network, the gateway configured to receive a request comprising a first domain name from a mobile device connected to the wireless network, the gateway further configured to transmit the request to a server, the server located on the wired network, the server configured to transmit a digital certificate comprising a second domain name to the gateway; and

the gateway further configured to compare the first domain name and the second domain name and to access a mapping table if the first domain name and the second domain name do not match.

43. The apparatus of claim 42 wherein the gateway is a proxy gateway.

44. The apparatus of claim 42 wherein the gateway comprises the mapping table.

45. The apparatus of claim 44 wherein the mapping table comprises at least two fields.

46. The apparatus of claim 45 wherein a second field of the at least two fields of the mapping table comprises at least one domain name corresponding to a domain name in a first field of the at least two fields.

47. The apparatus of claim 46 wherein the gateway configured to search the first field for a domain name matching the first domain name and the gateway further configured to search the second field for a domain name matching the second domain name, the domain name from the second field corresponds to the domain name from the first field.

48. The apparatus of claim 47 wherein the gateway further configured to allow the mobile device to access the server if the domain name from the second field matches the second domain name.

49. An apparatus comprising:

means for obtaining a first domain name provided by a client;

means for retrieving a second domain name from a digital

certificate;

means for comparing the first domain name and the second

domain name; and

means for accessing a data structure if the first domain name and

the second domain name do not match.

50. The apparatus of claim 49 wherein the digital certificate is transmitted by a server on a wired network.

51. The apparatus of claim 50 wherein the client is a mobile device connected to a wireless network, the wireless network is coupled to a wired network by a gateway.

52. The apparatus of claim 50 further comprising means for allowing the client to access contents of the server if the first domain name and the second domain name match.
53. The apparatus of claim 49 wherein the data structure comprises at least two fields.
54. The apparatus of claim 53 wherein a second field of the at least two fields comprises at least one domain name corresponding to a domain name in a first field of the at least two fields.
55. The apparatus of claim 54 further comprising means for searching the first field for a domain name matching the first domain name and means for searching the second field for a domain name matching the second domain name, the domain name from the second field corresponds to the domain name from the first field.
56. The apparatus of claim 55 further comprising means for allowing the client to access the server if the domain name from the second field matches the second domain name.

57. The apparatus of claim 55 wherein the domain name from the second field supports wildcard characters.

58. A processing system comprising:

a processor; and

a storage medium having stored therein instructions which, when executed by the processor, cause the processing system to perform a method comprising:

obtaining a first domain name entered by a client;

retrieving a second domain name from a digital certificate;

comparing the first domain name and the second domain

name; and

accessing a data structure if the first domain name and the second domain name do not match.

59. The apparatus of claim 58 wherein the client is a mobile device connected to a wireless network.

60. The apparatus of claim 59 wherein the digital certificate is transmitted by a server on a wired network, the wired network coupled to the wireless network by the processing system.

61. The apparatus of claim 60 wherein the wired network is Internet.
62. The apparatus of claim 58 wherein the server is a secure server.
63. The apparatus of claim 58 wherein the processing system is a proxy gateway.
64. The apparatus of claim 58 wherein the method further comprises allowing the client to access contents of the server if the first domain name and the second domain name match.
65. The apparatus of claim 58 wherein the data structure comprises at least two fields.
66. The apparatus of claim 61 wherein a second field of the at least two fields comprises at least one domain name corresponding to a domain name in a first field of the at least two fields.
67. The apparatus of claim 66 wherein the method further comprises searching the first field for a domain name matching the first domain name and searching the second field for a domain name matching the

second domain name, the domain name from the second field corresponds to the domain name from the first field.

68. The apparatus of claim 67 wherein the method further comprising allowing the client to access the server if the domain name from the second field matches the second domain name.

69. The apparatus of claim 66 wherein the domain name from the second field supports wildcard characters.

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